MANTI HIGH
Large Group Data Project

Target Group: 11th grade students
Target Group selection is based upon: All 11th grade students who took the CRT & UBSCT

ABSTRACT

Manti High counselors and administrators were interested to see if scores on the UBSCT and CRT were correlated. To discover such, scores for all 11th grade students (because they had taken all and results were in their records) gathered. UBSCT scores were compared to CRT raw scores (with a range of 200) rather than the standard 1-4 scores to maintain consistency. A correlative statistical analysis was performed to see how strong the link between scores truly was. It was expected that the tests would be highly correlated. Actual results did demonstrate a high degree of correlation between English and Algebra, however Geometry did not show as strong of a correlation.

PROJECT DESCRIPTION

Introduction

The reason we chose to do this project is because of the combined interest of our administration and our interest in seeing how well our students are doing on the standardized tests that they must take. There is a feeling that our students are being over-tested and there was a desire to see how similar the test they take are.

The focus of this research was to "Implement an information management system to more effectively access, disaggregate, and analyze data to improve our ability to make better decisions on behalf of students" This is part of our action plan and DRSL's that we felt we could improve on.

Participants

There were approximately 145 11th grade students who had taken either the UBSCT, CRT, or both. We wanted to make sure we gathered the most complete data possible, as well as the most current data. This lead us to the 11th grade scores. They were the most recent group to take the UBSCT and they had the most complete CRT scores.

Method

Data was gathered from the students cumulative file. CRT scores of 1-4 were not valid in this comparison, so the raw score of (ranging up to 200) was gathered off the student's results pages. These 11th grade student's UBSCT scores had just been sent to the counseling office as well, so the reports for those scores were gathered. All the data was centralized into an SPSS statistical analysis database. After the compilation of the data several tests were run. Each test was reported with a histogram containing a normal curve. Then these histograms were overlaid to visually demonstrate similarities or differences. Then a statistical analysis to determine mean,

median, mode, standard deviation, and ranges were performed. Finally a Pearson's two tailed correlation was performed with a significance set at the .01 level.

RESULTS

**For graphical representation of results please see the appended pages.

The results of our statistical analysis revealed that the correlation between the UBSCT and the CRT tests is high. A correlation coefficient of +.820 or above was found between the UBSCT English and the CRT English as well as the UBSCT Math and the CRT Geometry. However, the UBSCT Math and CRT Algebra were only correlated at a .65 level. This is an interesting outcome because it was assumed that the two tests were measuring the same math abilities, yet the results suggest that the Algebra questions are not doing such.
As for mean score comparisons the UBSCT & CRT English scores were very similar. The math scores between the two tests showed the greatest variations. The UBSCT scores were the highest, then the CRT Algebra scores, and the CRT Geometry scores come in lowest of the math tests.

DISCUSSION

Some of the data was disaggregated into gender, and another set was disaggregated into race. As it is visible on appended page 2, girls scored better on average and as a group than boys in both math and English tests. However on the racial side, Latino individuals consistently performed with lower scores on all tests than those of their Caucasian counterparts.

One of the confusing elements in the data is how the CRT is scored. The scale from 1-4 that is reported for the CRT is not based on a consistent interval, and is not intuitive. To receive a 2 student's scores must be between 145 and 155 however for a 3 score ranges are between 155 and 160. This problem is exacerbated if one looks at the Standard Deviation for scores in geometry on the statistics report sheet. They would find that a standard deviation is 11.35 points. Hence one standard deviation from the mean can result in a complete passing of score ranges for a 3.

Because math subject matter higher than geometry is not reported on CRT sheets we do not know how students who have a higher math acuity performed on the tests.

The frustration voiced by one administrator about these tests was two-fold. His first frustration centered on the fact of how many tests students are required to take. He speculated that in one academic year some students may take as many as six or seven standardized tests. He suggests that this is far to many tests that are essentially trying to measure the same skills or knowledge. His preference would be to have students take the ACT. This could act as an accurate assessment of student's learning as well as help prepare them for collegial academics.

The other frustration came not because of the tests themselves, but in the timing of the tests. He pointed out that the time of year in which the CRT test are given is the same time of year in which all the region and state competitions for nearly all extra-curricular activities take place.

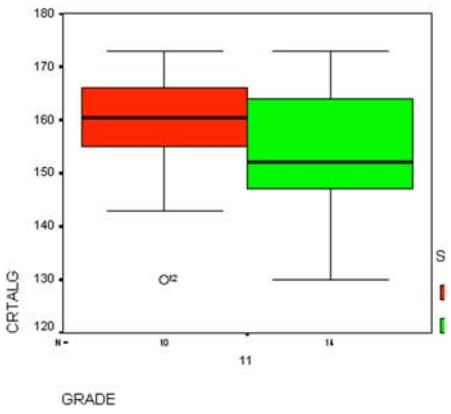
Ultimately we do see that the tests have very similar results. Because of such it does beg the question as to why students are given so many test that are measuring the same thing.

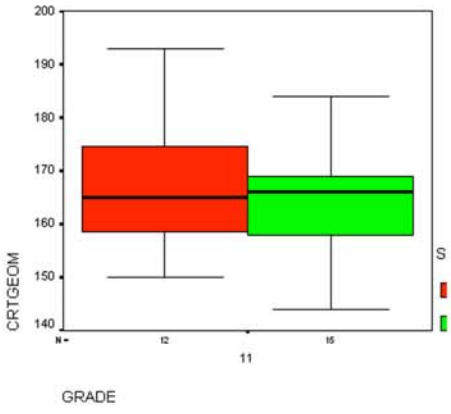
Statistics

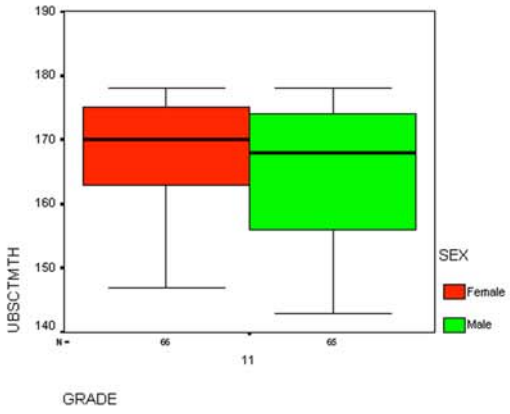
		UBSCTENG	UBSCTMTH	CRTENG	CRTGEOM	CRTALG
N	Valid	131	131	125	27	24
	Missing	14	14	20	118	121
Mean		166.83	166.46	166.96	165.48	154.46
Median		171.00	168.00	169.00	165.00	155.50
Mode		172[a]	175	172[a]	165	164
Std. Deviation		10.061	9.131	9.727	11.352	12.573
Range		48	35	55	49	43
Minimum		136	143	133	144	130
Maximum		184	178	188	193	173
Percentiles	25	161.00	161.00	163.00	157.00	147.50
	50	171.00	168.00	169.00	165.00	155.50
	75	173.00	174.00	173.00	172.00	164.00

a. Multiple modes exist. The smallest value is shown

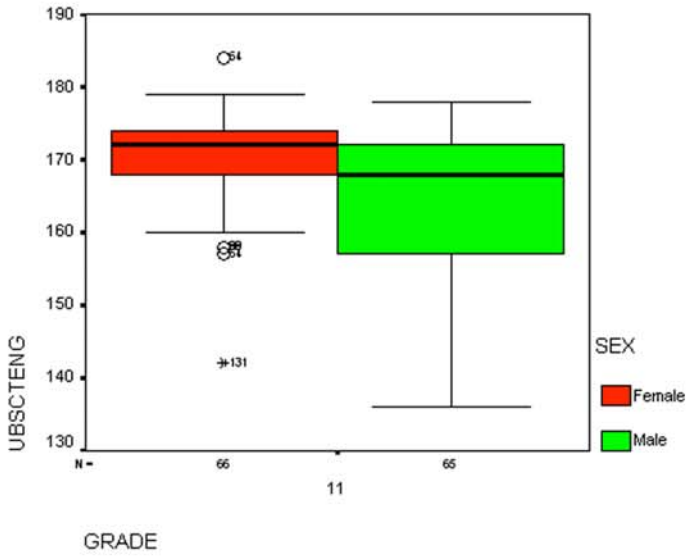
Gender Math Differences

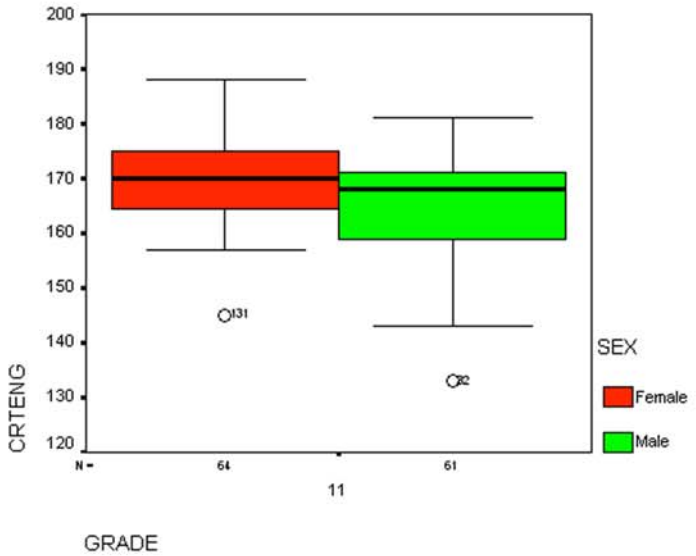




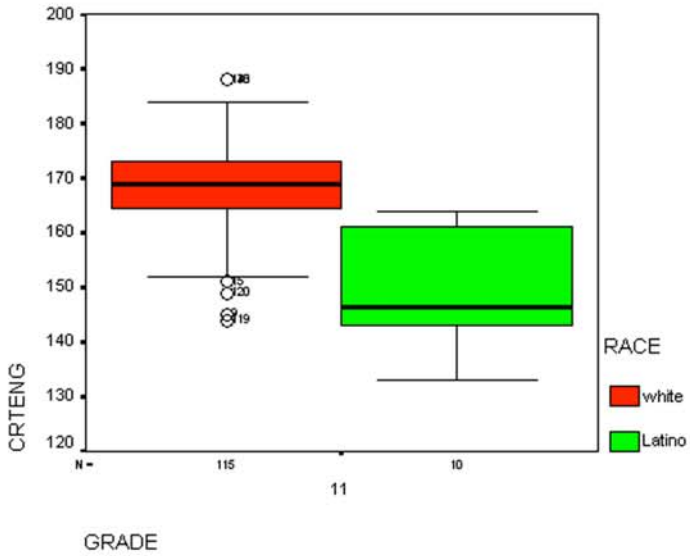


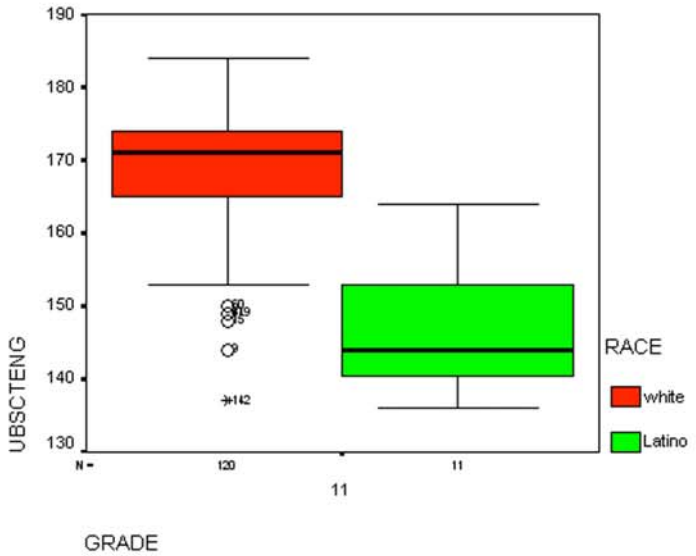
Gender English Differences

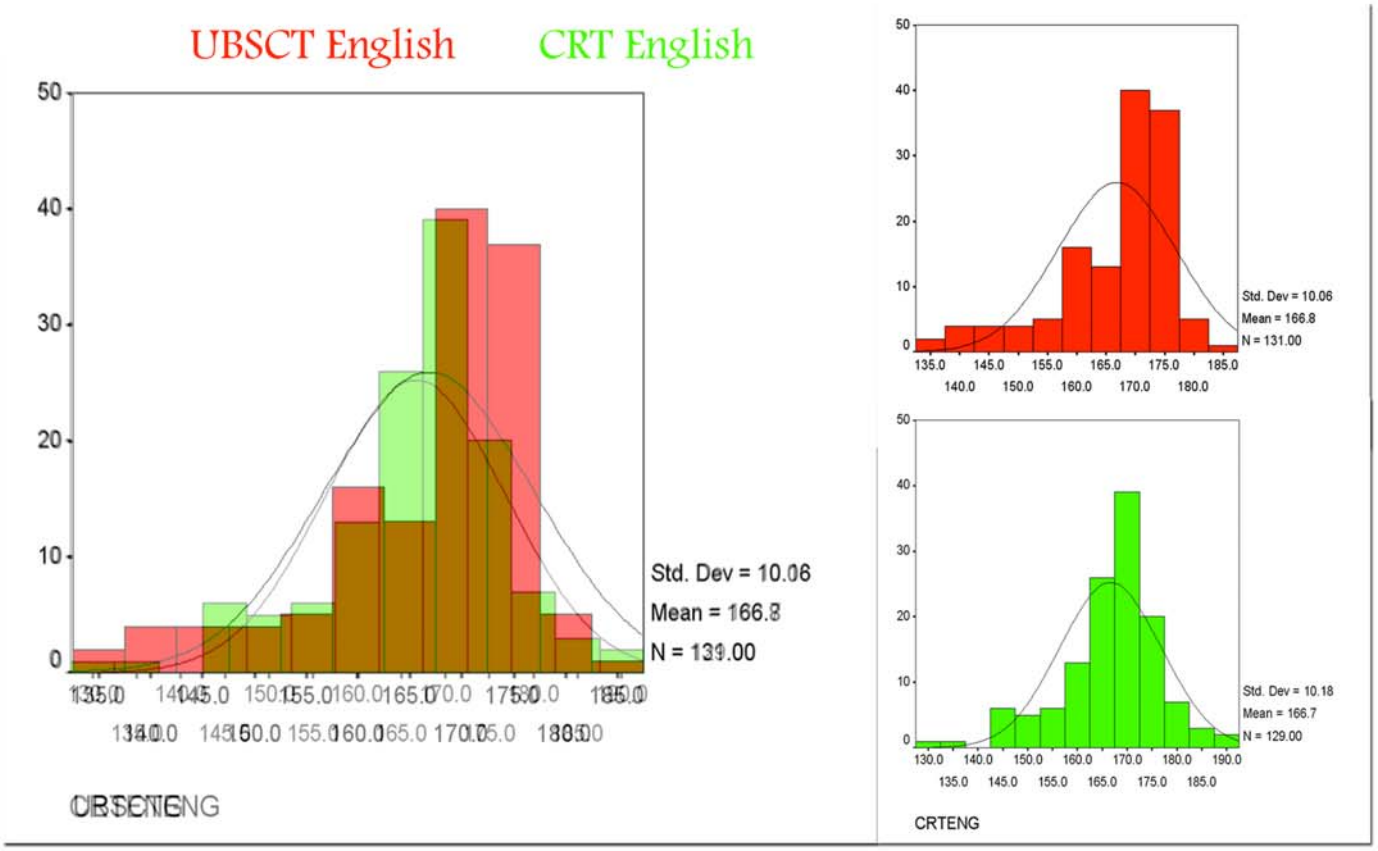




English Differences



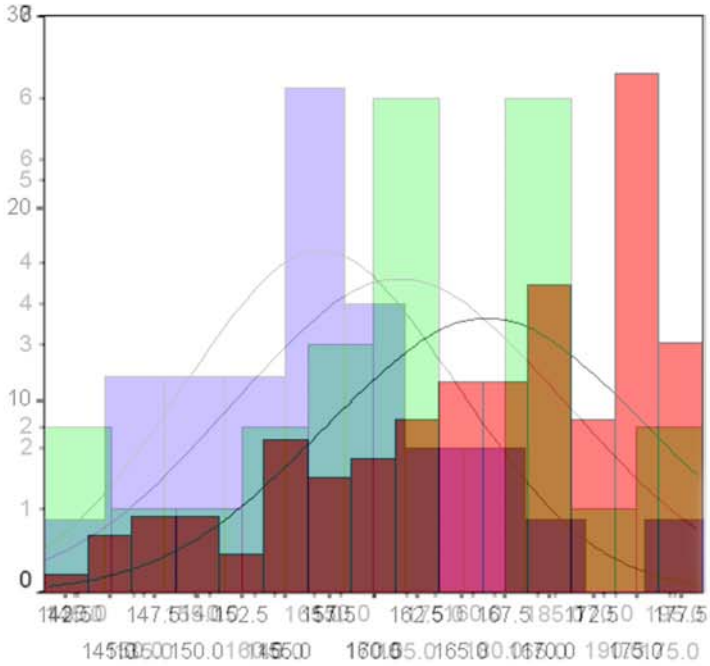


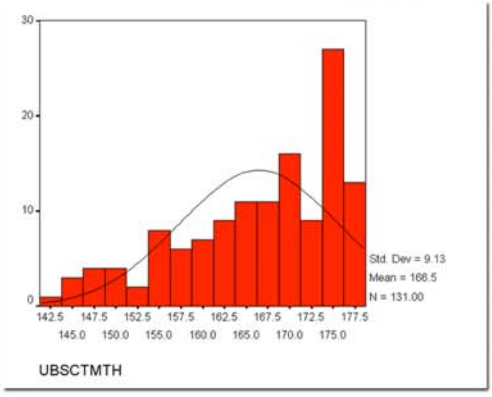


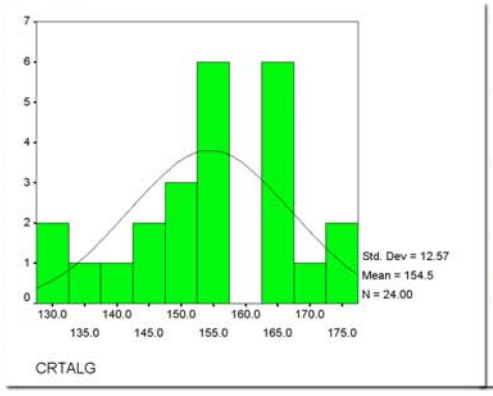
Correlations

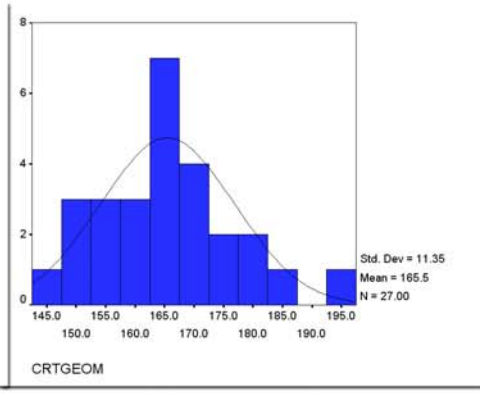
		UBSCTENG	CRTENG
UBSCTENG	Pearson Correlation	1	.825**
	Sig. (2-tailed)	.	.000
	N	131	125
CRTENG	Pearson Correlation	.825**	1
	Sig. (2-tailed)	.000	.
	N	125	125

**. Correlation is significant at the 0.01 level (2-tailed).









Correlations

		UBSCTMTH	CRTGEOM	CRTALG
UBSCTMTH	Pearson Correlation	1	.820**	.661**
	Sig. (2-tailed)	.	.000	.000
	N	131	27	24
CRTGEOM	Pearson Correlation	.820**	1	.[a]
	Sig. (2-tailed)	.000	.	.
	N	27	27	0
CRTALG	Pearson Correlation	.661**	.[a]	1
	Sig. (2-tailed)	.000	.	.
	N	24	0	24

**. Correlation is significant at the 0.01 level (2-tailed).

MANTI HIGH
Small Group Data Project

Target Group: Hispanic ESL Students
Perceived effectiveness of the Rosetta Stone program in assisting ESL students to acquire fluency.

ABSTRACT

The question has come to the counseling office's attention as to the effectiveness of the Rosetta Stone program for our English as a Second Language (ESL) students. The supervisor of the lab where students utilize this software reports that the students love it and it seems to help. The students on the other hand talk amongst themselves saying how easy the program is.

PROJECT DESCRIPTION & RESULTS

To answer the proposed question the counseling office gathered the following data:

- Questionnaire given to all the students currently using Rosetta Stone
- Student personal opinions
- Observations by the lab supervisor
- Observations by an ESL instructor

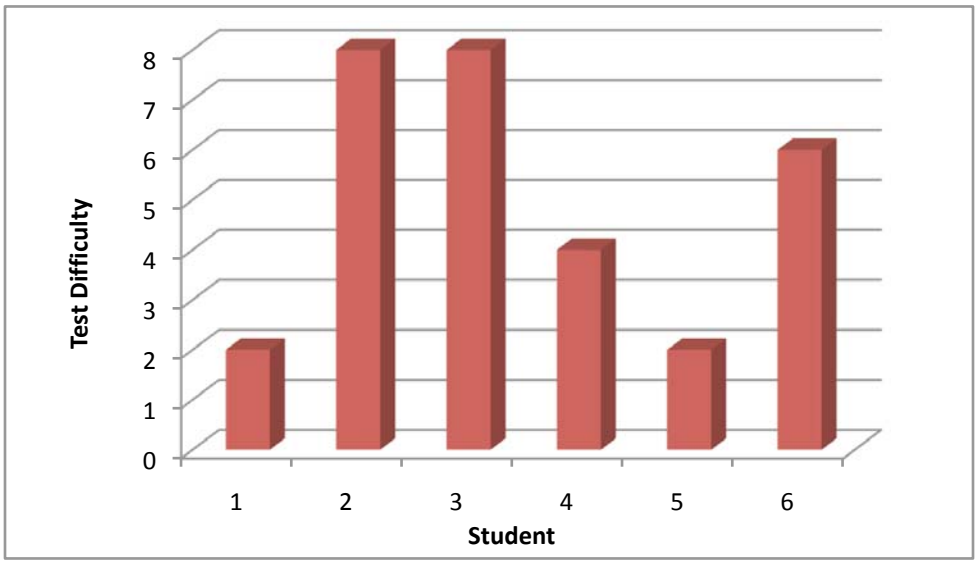
There was an attempt to make this data more meaningful by correlating the time students spent using Rosetta Stone to their UALPA (English fluency) test scores. We contacted the person over the UALPA testing only to discover that the test has been changed several times in the recent past and therefore the information could not be used to compare past to present scores.

Some of the student responses to questions follow:

When asked what was the most prominent thing the students learned while using Rosetta Stone the most common responses (in order) 1. Vocabulary 2. Listening 3. Reading 4. Pronunciation 5. Conversation.

Similarly, the students were asked if there were something more they would like the program to teach and they responded with concepts all dealing with speaking and conversation.

Another question was the difficulty of the test for the students. They were asked to rank the tests difficulty on an eight point Liker scale (1 – being very easy / 8 – being very difficult). Here you can see a graphical representation of the student's responses.



For the above difficulty questions the student's were asked to explain why they ranked the test either easy or difficult. For those who answered the test was not as difficult they responded that it was because they knew most of the vocabulary, and many of the questions were multiple choice. For the students who said the test was difficult, they responded that the program moved to fast for them and they did not understand much of the vocabulary.

One of the final questions asked to the students was what other things helped them to learn English. Almost every student answered that taking the ESL class was most helpful to them. After the class, the most mentioned learning help was when they tried to read in English.

Overall, the student's personal opinions were that the program was good. They said it was not to easy, but it was enough that they wanted to keep going and that it truly was helping them learn English. Statistically, the difficulty of the program has no correlation with the self reported fluency of the student, and the effectiveness of the, program could not be determined due to the number of variables we were unable to account for.